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# **Inflationary consequences of the Russian crisis of August 17<sup>th</sup>**

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## 1. The Crisis

Summer of 1998 saw the Foreign Reserves of the Central Bank of Russia (CBR) plunging, government finance reform proposals stalled in Duma and increasing liquidity problems in several Russian commercial banks. On August 17, 1998 Russian authorities decided to give up supporting the ruble exchange rate, to default on Treasury bills (GKO) and to introduce a moratorium on servicing of foreign debts. The first two decisions prompted the development of an acute banking crisis (which had been looming anyway) because Russian banks held large portfolios of GKO and dollar forwards.

Political developments added uncertainty to the financial havoc. On August 23 the president dismissed the government of Sergei Kiryenko. Dramatic confrontation over the successor between Duma and the President (among threats of the President impeachment and of Duma dissolution) ended on September 11. In the meantime, on September 7, Sergei Dubinin, the Chairman of the Central Bank of Russia, resigned.

## 2. Reasons of the initial surge of inflation

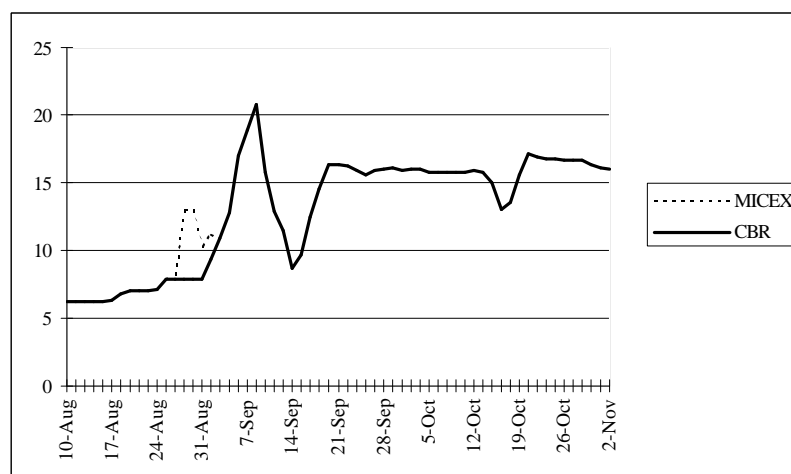
The initial surge of inflation should be attributed to the direct effect of ruble depreciation on prices and to the uncertainty and pessimistic expectations, which caused a wave of speculative demand for goods.

### *2.1. Depreciation of the ruble*

On August 17 the Central Bank of Russia (CBR) decided to unlink the ruble from the dollar. Official exchange rate corridor was widened significantly (to 6 - 9.5 RUR/USD). However, as market pressure kept rising, even the threshold of 9.5 RUR/USD proved to be impossible to defend, although the CBR utilized \$2.4 billion of its reserves during 2 weeks (the reserves fell from \$15.1 billion on Friday, August 14 to \$12.7 billion on August 27). Official trading was shut down on August 26 for over a week, but a divergence between the officially set rate and the rate determined on the electronic trading system was too obvious. In order to prevent the emergence of a black market for currency, the CBR had to come up with more-realistic exchange rates. Since the beginning of September ruble was floating. In the first week of September the exchange rate plunged beyond 20 rubles to the dollar.

The trend reversed unexpectedly and ruble peaked at 8.67 per dollar on September 15. This episode can be attributed to a collusion of banks and the Central Bank to push ruble up and thus reduce the liabilities of banks resulting from forward contracts, which came due on September 15 (although payments resulting from these contracts were frozen anyway, as a result of the moratorium). Low turnover on the currency market made this manipulation easier to conduct - the CBR sold only \$300 million in the culmination week. After September 15 the exchange rate returned fast to a level of about 16 RUR/USD. A similar action was repeated before October 15, although on a smaller scale (see Figure 1).

Figure 1. RUR/USD exchange rate, daily\*



\* Exchange rate determined on Moscow Interbank Currency Exchange (MICEX) is presented for the period, when official trading was shut down and a significant discrepancy between MICEX and the official CBR rate existed. Sources: RET, Troika Dialog.

The rate of about 16 rubles per dollar seems to be a center of ruble fluctuations after August 17 and thus it seems to point to some, at least temporary, equilibrium level. MFK Renaissance analysts defy such a claim<sup>1</sup> and point to a number of factors determining the artificial ruble strength. According to them, the market has been destroyed: most banks are in a precarious state and suspect the same about their partners, which makes them reluctant to trust them. Thus, turnover on the currency market has shrunk. Banks are also subject to a moral pressure by the Central Bank, any of them can be banned from currency trading at all (and several of them already have been). Occasionally, the trade is cancelled and the CBR sets the rate on the previous day's level.

Beginning of October saw introduction of further restrictions on trading: on the morning sessions exporters are obliged to sell 50% of their foreign currency revenues, while purchases are allowed only on an account of import contracts, dividend payments and repayment of principal on trade credits guaranteed by foreign governments. Imports have shrunk because of the devaluation, so usually there is an excess supply, which the CBR buys and later sells on the afternoon session. Not surprisingly, ruble is stronger on the morning session, although through October the difference between the morning and afternoon rates was usually only a few percent.

Regardless of all the above arguments in favor of the claim, that the rate of 16 rubles to the dollar through September and October is artificial, this rate can't be too far from the medium term equilibrium either. So far, there is no evidence of a black market for currency. In retail, dollars are available for purchase most of the time. Depreciation from 6.2 to 16 rubles to the dollar (by 160%) has been huge anyway. Destruction of the market and interference with its working by the CBR may have countervailed the excess panic in the initial stage of the crisis.

However, measures undertaken by the Central Bank are of a short-sighted nature and lead only to pathologies in the longer run. Experience shows that market mechanisms always find their way through. The view that the ruble will fall further is widespread, irrespective of any official announcements and administrative barriers.

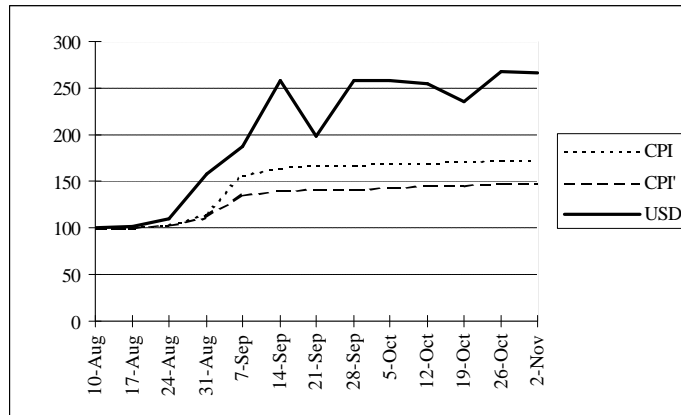
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<sup>1</sup> MFK Renaissance, *Currency Update, The Illusion of Rouble Strength*, September 24, 1998.

## 2.2. Impact of the exchange rate depreciation on prices

Depreciation of the ruble had a direct effect on prices of imported goods and an indirect effect, as prices of Russian-made goods catch up, at least partly. Nevertheless, prices rose much less than the exchange rate. As a result, purchasing power of the dollar rose by around 60%.

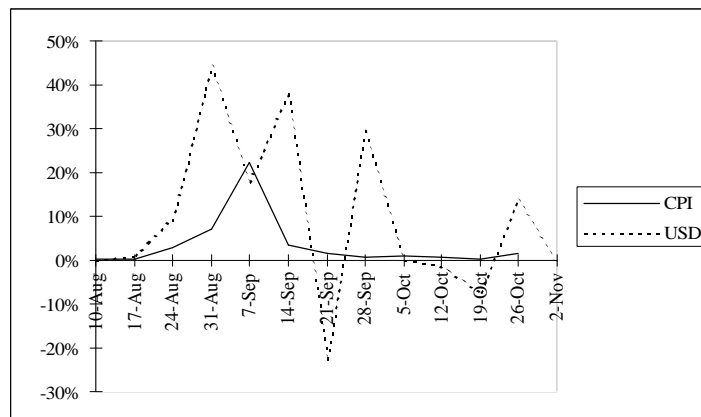
Figure 2. CPI, RUR/USD official exchange rate\*, weekly average, indices (August 10 = 100)



\* For August 26 - September 3 MICEX rate was used, because it better reflected the market value of the ruble. Series CPI reflects preliminary weekly inflation figures (on the basis of a basket of 37 items). Series CPI' is corrected, to bring the weekly inflation figures to accordance with the monthly ones, which reflect a larger consumer basket. Sources: Interfax Statistical Report (CPI), RET and Troika Dialog (exchange rate).

Comparison of the weekly dynamics of price index<sup>2</sup> and exchange rate changes (Figure 3) allows observing the phasing of price adjustment. Consumer prices started rising together with the initial wave of ruble depreciation, although at a much slower rate. The rate of inflation peaked in the first week of September (prices rose by 36% according to the initial estimates), when the exchange rate also reached a maximum of over 20 rubles to the dollar. In the second half of September inflation subsided, and remained low throughout October. Prices did not fall in the wake of the spectacular ruble strengthening before September 15 and October 15.

Figure 3. CPI, RUR/USD official exchange rate\*, percentage change



- For August 26 - September 3 MICEX rate was used, because it better reflected the market value of the ruble.

<sup>2</sup> In September the Russian State Statistics Committee started to monitor consumer prices on a weekly basis, in order to follow more closely post-crisis inflation developments. Weekly inflation is calculated on the basis of a small basket of 37 goods, including 25 food items. Price data is collected in all regions of Russia. Weekly figures don't add up to the monthly one: they are reported only for the first three weeks of the month.

Sources: Interfax Statistical Report (CPI), RET and Troika Dialog (exchange rate).

It is not straightforward to determine the rates of growth of prices of imported and domestically produced goods separately. Groups of goods for which data is available include both domestically produced and imported ones, although certainly in different proportions. Thus, certain patterns can be figured out of the existing data.

Table 1 reports inflation data for different categories of items. Food dominates the CPI basket, so the price growth of this group of items is closest to the overall CPI inflation. Russia is highly dependent on imported food, according to many estimates imports cover about a half of the domestic supply<sup>3</sup>. The highest price growth was noted for non-food items. Services grew much less than the remaining items. Also, producers' price index lagged far behind retail prices.

*Table 1. CPI, of which: Food, Non-food, Services; Industrial Production Price Index (IPPI), USD (official exchange rate), percentage change*

|               | <b>Total</b> | <b>Food</b> | <b>Non-food</b> | <b>Services</b> | <b>IPPI</b> | <b>USD</b> |
|---------------|--------------|-------------|-----------------|-----------------|-------------|------------|
| <b>Aug.98</b> | 3.7%         | 2.4%        | 7.1%            | 1.2%            | -0.6%       | 67.1%      |
| <b>Sep.98</b> | 38.4%        | 39.5%       | 54.3%           | 3.4%            | 7.5%        | 53.5%      |
| <b>Oct.98</b> | 4.5%         | 3.9%        | 7.4%            | 1.6%            | 5.9%        | 1.0%       |

Source: Interfax News Agency, Statistical Report (CPI and its components, IPPI), RET and Troika Dialog (exchange rate).

Pattern of increases of food prices (Table 2) suggests that it is the imported goods prices that rose most. Highest price hikes are noted for tee, rice and coffee, sunflower oil (although Russia is exporting sunflower seeds, it imports half of the domestic supply of the oil) and dairy butter (half of it comes from imports). On the other extreme are cabbage (prices fell for seasonal reasons), rye bread and tvorog, produced domestically.

*Table 2. Price changes for selected groups and types of food in Russia, September 1998 (aggregate food prices index: 139.5%)*

| <b>Group</b>                             | <b>Index, %</b> | <b>Max/Min Change</b>               | <b>Index, %</b> |
|--|-----------------|-------------------------------------|-----------------|
| Meat and Chicken                         | 134.4           | Chicken Parts                       | 164.0           |
|  |                 | Pigmeat, Except Boneless            | 121.6           |
| Butters and Fats                         | 202.7           | Sunflower Oil                       | 235.6           |
|  |                 | Dairy Butter                        | 175.3           |
| Milk and Dairy Products                  | 120.4           | Dry Milk for Babyfood               | 195.6           |
|  |                 | Low-fat Tvorog                      | 111.5           |
| Tea, Coffee                              | 248.1           | Black Tea                           | 279.5           |
|  |                 | Instant Coffee                      | 223.0           |
| Bread, Baked                             | 110.4           | Baked Products From Top-grade Flour | 123.7           |
|  |                 | Rye Bread and Wheat-and-Rye Bread   | 107.5           |
| Groats, Legumes                          | 232.6           | Hulled Rice                         | 274.0           |
|  |                 | Peas, Beans                         | 143.3           |
| Fruit and Vegetables, Including Potatoes | 117.8           | Bananas                             | 196.9           |
|  |                 | Fresh Cabbage                       | 84.4            |

After: Interfax News Agency, Statistical Report, 16.10.1998

<sup>3</sup> Probably, such estimates do not include the food produced domestically on small plots of land, for own consumption. According to Victor Semenov, the Minister of Agriculture (after: *Ot goloda spasut srochnye tsentralizovannye zakupki edy*, "Nezavisimaya Gazeta" - NG Politekonomia, 18.11.1998), about 100 million Russian citizens are self-dependent with regard to potatoes and vegetables, and 50 million supply themselves with meat.

Prices of non-food items (Table 3) grew faster than the CPI. Russian-made goods are among those which prices grew less (electric irons), but also among the fastest growing items (filter-less cigarettes which are likely to be produced from domestically grown tobacco). Price of gasoline (Russia is an exporter of gasoline) went up by 30%.

*Table 3. Price changes for selected groups and types of non-food goods in Russia, September 1998 (aggregate non-food prices index: 154.3%)*

| <b>Group</b>     | <b>Index, %</b> | <b>Max/Min Change</b>                         | <b>Index, %</b> |
|------------------|-----------------|---|-----------------|
| Clothing, Linen  | 124.3           | Men's Clothing                                | 128.6           |
|                  |                 | Bed Linen                                     | 119.7           |
| Footwear         | 130.1           | Ladies' Footwear                              | 134.9           |
|                  |                 | Children's Footwear                           | 121.5           |
| Tobacco Goods    | 252.5           | Filter Cigarettes (Russian-made)              | 264.4           |
|                  |                 | Filter-less Cigarettes (Russian-made)         | 241.9           |
| Electrical Goods | 181.9           | Automatic Washing Machines (Imported)         | 202.1           |
|                  |                 | Electric Irons with Thermostat (Russian-made) | 121.1           |
| Audio-Visual     | 191.2           | Color TV Sets, 51-54 cm Screen                | 193.4           |
|                  |                 | Imported Videocassettes                       | 181.6           |
| Medicines        | 143.3           | Galazoline (For Adults)                       | 189.7           |
|                  |                 | Erythromycin (For Adults)                     | 110.8           |

After: Interfax News Agency, Statistical Report, 16.10.1998

*Table 4. Price changes for selected groups and types of service in Russia, September 1998 (aggregate services prices index: 103.4%)*

| <b>Group</b>       | <b>Index, %</b> | <b>Max/Min Change</b>            | <b>Index, %</b> |
|--------------------|-----------------|----------------------------------|-----------------|
| General            | 105.3           | Photographic                     | 117.4           |
|                    |                 | Funeral                          | 102.1           |
| Transport          | 104.8           | Air                              | 110.7           |
|                    |                 | Rail                             | 101.0           |
| Communications     | 100.6           | City Telephone                   | 100.8           |
|                    |                 | Post                             | 100.1           |
| Housing, Utilities | 101.4           | Hospitality, Other Accommodation | 111.8           |
|                    |                 | Electricity                      | 100.3           |

After: Interfax News Agency, Statistical Report, 16.10.1998

The above data can be summarized as follows. First, prices of imported goods were rising faster than prices of Russian-made goods. Prices of many important imported consumer goods, like tee, coffee, tobacco goods, rice or sunflower oil rose by about as much as the dollar (by around 160%). Second, retail prices of domestically produced food and non-food items were catching up too, producer prices lagged behind and services reacted most sluggishly.

To understand the direct short-term link between depreciation and domestic prices, one should take into account additional factors: profit margins on import and the size of the stocks of goods imported prior to devaluation. Profit margins on imported goods are believed to have been high. According to the CBR, importers could survive at least a 40% devaluation of the ruble without raising domestic prices at all [Interfax News Agency, Financial Report, October 2, 1999 Volume VII, Issue 39 (355)]. In the wake of the crisis, duties on some agricultural imports have been cut by 5-15%. As for the stocks of pre-August 17 consumption goods imports, they are believed to suffice until the end of November. Goods sold in September were rarely paid for at the new exchange rate. Since the outset of the crisis the payment system was in a mess and imports fell dramatically<sup>4</sup> for this reason. Yet, after the short period of turmoil in late August and early

<sup>4</sup> According to E.Tiurina from Institut koniunktury agrarnogo rynka, in September food imports fell by 80% [Ot

September, no shortages were observed. These factors suggest that there has been some room for importers to dampen the effect of devaluation on prices, at least partially and in the short term, had they met with a hard constraint on the side of demand.

### 3. Role of expectations and speculative demand

The chain of events, which began in August, caused distress among the population. Liquidity problems in the banking sector became known, and access to deposits was restricted. Queues of angry depositors emerged at the doorsteps of banks. The ruble was falling dramatically and people saw their ruble assets lose value from day to day. There was no government and the political conflict brought a threat of Duma dissolution or impeachment, and new elections. There existed a complete uncertainty about the future economic policies.

In this situation expectations of inflation and further depreciation were high. Speculative demand<sup>5</sup> for both goods and dollars arose, as people wanted to insure themselves against an unknown future and get rid of rubles, which kept losing value.

In late August and early September shortages emerged in the shops. This was caused both by the wave of demand and by sellers holding back supplies, in fear of selling their goods too cheaply, before some medium term equilibrium prices emerge. In the first week of September inflation and panic buyout peaked. Afterwards, equilibrium on consumer goods markets was regained, although consumer choice was reduced: many imported product varieties disappeared permanently from the shelves. According to *Institut Koniunktury Agrarnogo Rynka*, population made stocks of storable food items for 2-4 months.

The pattern of price changes supports the conjecture that prices reacted in the first place to the speculative demand for storable goods. Among the food items (see Table 2) which prices rose at a slower rate were mainly not storable goods, like bread, milk and dairy products (fruit and vegetables are not a good example because of a highly seasonal price dynamics). Dairy butter rose in price significantly less than sunflower oil, although both items come from imports in 50%. Highest price hikes were noted for well storable items both 100% imported (tea, coffee) and domestically produced, like groats and legumes. Consistently, prices of non-food goods, which can be kept infinitely, grew even faster than prices of food. Services are not storable at all, and the slight inflation of prices of services is reflecting only the cost inflation, which will most probably work stronger with a longer lag.

### 4. Limits of price growth

Rapid growth of prices stopped in the middle of September as a result of a number of factors. First, the wave of speculative demand for goods ended, as people used up the available free resources and ran out of storing space. At the same time, authorities of many regions started introducing price ceilings, which could have improved the official inflation figures.

Probably most importantly, as prices rose and nominal incomes stayed unchanged (according to the SSC they rose by 1.5% in comparison with August), people's real incomes were

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*goloda spasut srochnye tsentralizovannye zakupki edy, "Nezavisimaya Gazeta" - NG Politekonomia, 18.11.1998]. For the whole of 1998 aggregate imports are expected to shrink 14 to 18%.*

<sup>5</sup> *Speculative demand means here that an item is demanded not for its direct use, but as a portfolio asset, to preserve wealth.*

reduced (in September alone - by about 38%). This put a tight constraint on the scope of price increases acceptable for the consumers.

The impact of the banking crisis on consumer demand and prices is ambiguous: on the one hand, a part of the wealth of people which was held in bank accounts was frozen and possibly lost, which likely reduced their ability to spend. On the other hand, money that was being withdrawn from the banking system (deposits fell by 30 million rubles since August) was quickly converted to currency and goods.

## 5. Money velocity perspective

### 5.1. Money supply

In the beginning of August Monetary Base was at RUR 160.8 billion, M0 at RUR 129.3 billion, M2 at RUR 360 billion and Broad Money (Money + Quasi Money, incl. foreign currency deposits) at RUR 438.5 billion. First two months of the crisis saw large changes in both size and composition of nominal money supply.

#### 5.1.1. Monetary Base

In August Monetary Base shrunk by RUR 2.1 billion as a result of CBR interventions on the currency market. Subsequently, the trend reversed and Monetary Base grew by RUR 26.6 billion (17%) in September and October. Monetary Base growth is believed to result from CBR loans to banks and, through them, to the government (Pension Fund) as well as from CBR purchases of government securities [MFK Renaissance Weekly Monitor, October 26, 1998].

Required reserve ratio was reduced from 11% to 10% of deposits on August 24 and further to 7.5-5% (depending on the size of the GKO portfolio) on September 1. Part of the reserves were released in the three mutual clearing schemes, conducted on September 18, September 25 and October 2, in which payments totaling RUR 30.3 billion were cleared. Some banks did not use all the freed reserves, but other ran overdrafts, which are to be settled only in December. Total banking sector reserves in the CBR were at RUR 22.5 billion in the end of October, compared with RUR 51.7 billion in the beginning of August and RUR 41.7 billion in the end of August. As a result, currency in circulation (M0) increased more than Monetary Base, by RUR 4 billion in August [CBR, Biulleten bankovskoi statistiki No.10(65)], further by RUR 21 billion in September [RET, November 1998] and more (according to MFK Renaissance: RUR 20 billion in the first 3 weeks) in October.

#### 5.1.2. Broad Money

As a result of the banking sector crisis most depositors found access to their bank deposits constrained. Thus, effectively bank deposits ceased to be a part of the broad money supply (at least temporarily, as long as banking sector liquidity is not restored). Run of population on deposits resulted in a fall of total individual deposits by RUR 30 billion: from RUR 161.2 billion on August 1 to RUR 131.5 billion on October 1 [Moscow Times, October 30, 1998, after: Interfax]. Remaining deposits are kept involuntarily. Anecdotal evidence suggests that the market value of deposits in problem commercial banks is as low as 50% (this is the rate charged by "obnalichniki"). However, some banks that were declared insolvent in the beginning of the crisis (SBS-Agro) managed to negotiate support from CBR and filled their ATMs in October, although only limited amounts can be withdrawn at one time. On the other hand, Inkombank and several smaller banks were declared bankrupt.



In the absence of exact data, the overall effect of the crisis on money supply can be assessed only approximately. Table 5 presents an attempt to summarize the above developments.

*Table 5. Summary of changes in the broad domestic money supply in Russia, in the aftermath of the crisis*

|  | on Aug.1<br>(RUR bln) | factors of change   | change                                 | change<br>(% of M2) | on Oct.1<br>(RUR bln) |
|--|-----------------------|---|--|---------------------|-----------------------|
| <b>M0</b>                              | 129.3*                | <ul style="list-style-type: none"><li>• release of reserves of commercial banks from the CBR</li><li>• CBR loans to banks</li></ul>   | + RUR 25 bln**                         | + 6.9%              | 154.4**               |
| <b>deposits</b>                        | 230.7*                | <ul style="list-style-type: none"><li>• withdrawals of individual deposits</li></ul>  | – RUR 29.7 bln***                      | – 8.3%              | 201.0                 |
| <b>deposits – effectively</b>          | –                     | <ul style="list-style-type: none"><li>• withdrawals of other deposits (no data)</li><li>• outstanding deposits are involuntary, and their market value is about 50%</li></ul> | ~ – RUR 100.5 bln<br>(~ – 50%*201 bln) | – 27.9%             | 100.5                 |
| <b>total broad domestic money (M2)</b> | 360.0*                | –   | ≈ – RUR 105.2 bln                      | – 29.2%             | 254.9                 |

Sources: \* CBR, Biulleten Bankovskoi Statistiki, No.10(65), Moscow 1998; \*\* RET, November 1998; \*\*\* Moscow Times, October 30, 1998, after: Interfax; own estimates and calculations.

## 6. Nominal and real GDP

The crisis was connected with an acceleration of output contraction and an even stronger acceleration of price inflation. In September the real GDP was 4.6% lower than in July, while as a result of price level growth the nominal figure was 20% higher.

## 7. Money velocity

A 20% growth in nominal GDP together with the 30% effective money supply reduction result in more than 50% growth of velocity. Table 6 and Figure 4 present monthly data on velocity since January 1997, in order to put the developments of the recent months into a broader context.

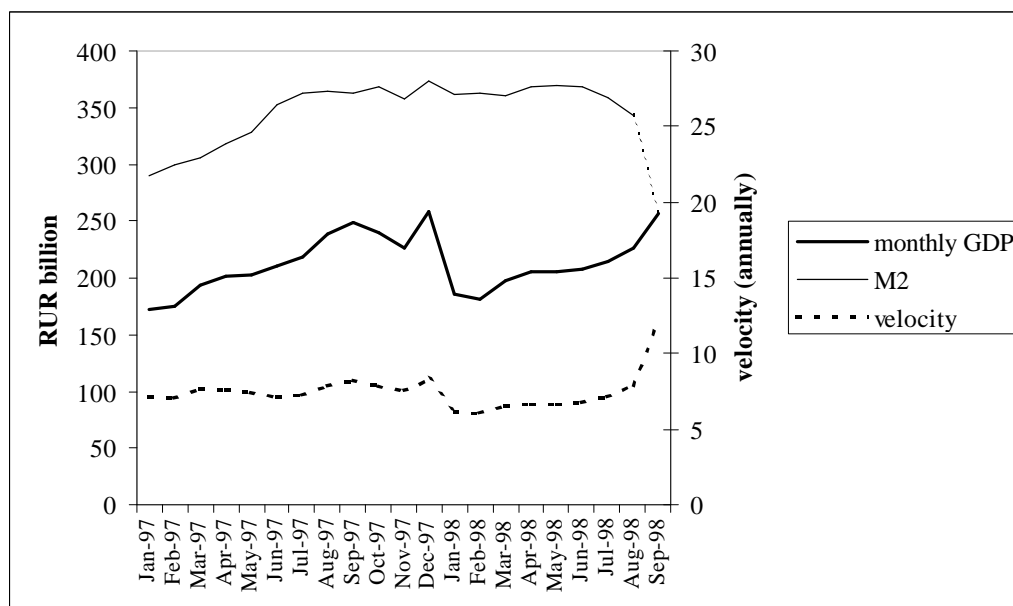
Table 6. Monthly GDP, M2, velocity and monetization (annualized), Russia 1997-1998

| Date   | monthly GDP | M2     | velocity | monetization |
|--------|-------------|--------|----------|--------------|
| Jan-97 | 172.1       | 289.9  | 7.1      | 14.0%        |
| Feb-97 | 175.0       | 299.5  | 7.0      | 14.3%        |
| Mar-97 | 193.8       | 305.8  | 7.6      | 13.1%        |
| Apr-97 | 201.2       | 317.8  | 7.6      | 13.2%        |
| May-97 | 203.2       | 328.4  | 7.4      | 13.5%        |
| Jun-97 | 210.6       | 352.0  | 7.2      | 13.9%        |
| Jul-97 | 219.1       | 363.0  | 7.2      | 13.8%        |
| Aug-97 | 237.9       | 364.6  | 7.8      | 12.8%        |
| Sep-97 | 248.8       | 363.0  | 8.2      | 12.2%        |
| Oct-97 | 240.0       | 368.8  | 7.8      | 12.8%        |
| Nov-97 | 226.0       | 357.4  | 7.6      | 13.2%        |
| Dec-97 | 258.0       | 374.1  | 8.3      | 12.1%        |
| Jan-98 | 185.9       | 361.2  | 6.2      | 16.2%        |
| Feb-98 | 182.1       | 362.9  | 6.0      | 16.6%        |
| Mar-98 | 197.6       | 360.4  | 6.6      | 15.2%        |
| Apr-98 | 205.0       | 368.0  | 6.7      | 15.0%        |
| May-98 | 205.9       | 370.0  | 6.7      | 15.0%        |
| Jun-98 | 207.4       | 368.6  | 6.8      | 14.8%        |
| Jul-98 | 214.1       | 359.4  | 7.1      | 14.0%        |
| Aug-98 | 226.1       | 343.6  | 7.9      | 12.7%        |
| Sep-98 | 257.0       | 254.9* | 12.1     | 8.3%         |

\* Estimate of an effective M2, taking account of frozen deposits.

Sources: Nominal GDP and M2 – RET; velocity and monetization – own calculations: velocity calculated as annualized monthly GDP divided by M2, monetization is a reciprocal of velocity.

Figure 4. Monthly nominal GDP, M2, velocity, Russia 1997-1998



Sources: Nominal GDP and M2 (left scale) – RET; velocity (right scale) calculated as annualized monthly GDP divided by M2

Crisis resulted in a significant fall of demand for domestic money. Price level growth, huge exchange rate depreciation and general uncertainty practically eliminated portfolio demand for rubles. Banking sector crisis resulted in an additional reduction of demand for deposits. Whenever

possible, wealth is rather kept in cash dollars and only the amount of rubles necessary for nearest purchases is kept in wallets. Falling real output reduces transaction demand for money.

On the other hand, the inflation surge of early September, after subsiding, left behind a higher price level and thus a need for more cash rubles to service a given amount of transactions.

Restriction of population's access to deposits effectively amounted to a reduction of broad money supply. Given that the damage to banking sector credibility had already been done, this helped to equilibrate money market in the short run.

It is difficult to quantify the impact of the mechanisms mentioned above. In October a relative stabilization of inflation and exchange rate can be observed. Therefore, a rough hypothesis can be proposed, that the current level of money velocity, calculated with the above assumptions be reasonably close to equilibrium. Thus, any increases in money supply (this would also mean in this context an increase in an access to people's own money frozen in bank accounts) would feed through to currency depreciation and prices, leaving money velocity on the same level.

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